

a) obtaining a first sample of a tissue or body fluid from said mammal;  
b) assessing the level of an isoprostane molecular marker for lipid peroxidation present in said first sample, wherein said isoprostane molecular marker is selected from the group consisting of  $iPF_{2\alpha}$ -III,  $iPF_{2\alpha}$ -VI, and 8,12-*iso*- $iPF_2$ -VI; and

Q1

c) comparing the level of said isoprostane molecular marker present in said first sample with the level of said isoprostane molecular marker present in a second sample of a tissue or body fluid obtained from an otherwise identical mammal which is not afflicted with an oxidant stress syndrome or disease, wherein an elevated level of said isoprostane molecular marker in said first sample relative to the level of said isoprostane molecular marker in said second sample, is indicative of an elevated level of lipid peroxidation in said mammal, thereby indicating the presence of an oxidant stress syndrome or disease in said mammal.

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11. (Amended) A method of diagnosing an oxidant stress syndrome or disease in a mammal, wherein said oxidant stress syndrome or disease is Alzheimer's disease, said method comprising

a) obtaining a first sample of a tissue or body fluid from said mammal;  
b) assessing the level of said isoprostane molecular marker present in said first sample, wherein said isoprostane molecular marker is selected from the group consisting of  $iPF_{2\alpha}$ -III,  $iPF_{2\alpha}$ -VI, and 8,12-*iso*- $iPF_2$ -VI; and

Q2

c) comparing the level of said isoprostane molecular marker present in said first sample with the level of said isoprostane molecular marker present in a second sample of a tissue or body fluid obtained from an otherwise identical mammal which is not afflicted with an oxidant stress syndrome or disease, wherein an elevated level of said isoprostane molecular marker in said first sample relative to the level of said isoprostane molecular marker in said second sample, is indicative of an elevated level of lipid peroxidation in said mammal, whereby said oxidant stress syndrome or disease is diagnosed in said mammal.

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